

REMARKS

The above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated April 20, 2005. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 25-30 are under consideration in this application. Claims 1-15 are being cancelled without prejudice or disclaimer. New claims 25-30 are being added to recited other embodiments described in the specification, especially Figs. 4-5.

Additional Amendments


The specification and the claims are being amended to correct formal errors and/or to better disclose or describe the features of the present invention as claimed. All the amendments to the specification and the claims are supported by the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

The drawings were objected to for failing to show all the features recited in claim 3, and the specification and the claims were objected to for minor formal errors. Claims 1-15 were rejected under 35 U.S.C. § 112, second paragraph, for being indefinite in claiming the invention. Claims 1-15 are being cancelled without prejudice or disclaimer and the specification is being amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejections is in order, and is therefore respectfully solicited.

Prior Art Rejections

Claims 1-6, 9, 13 and 14 were rejected under 35 U.S.C. § 102(e) as being anticipated by US Patent No. 6,777, 800 to Madrid et al. (hereinafter "Madrid"), Claims 7, 8 and 15 were rejected under 35 USC § 103(a) as being unpatentable over Madrid in view of US Patent No. 6,256,200 to Lam et al. (hereinafter "Lam"), and claim 11 was rejected under 35 USC § 103(a) as being unpatentable over Madrid in view of US Patent No. 6,222,738 to Maeno et al.



(hereinafter "Maeno"). Other prior art references listed on the accompanying Form PTO-892 were cited as being pertinent to the present application.

As claims 1-15 are being cancelled without prejudice or disclaimer, the rejections thus become moot.

The semiconductor device of the invention (for example the embodiment depicted in Figs. 1 & 4-6; see the annotated drawings), as now recited in claim 25, comprises: a semiconductor chip 16 (Fig. 1; reversed in Fig. 6 with internal details) including a MISFET; a source electrode 33 (Fig. 6) of the MISFET formed on a bottom surface (top in Fig. 6) of the semiconductor chip 16; a gate electrode 36 of the MISFET formed on a bottom surface of the semiconductor chip 16; a drain electrode 38 formed on a top surface (bottom in Fig. 6) of the semiconductor chip 16; a drain electrode terminal 6 positioned over the drain electrode 38 and electrically connected with the drain electrode 38, the drain electrode terminal 6 extending from over the top surface of the semiconductor chip 16 to under the bottom surface of the semiconductor chip (Fig. 1); a source electrode terminal 4 positioned under the source electrode 33 and electrically connected with the source electrode 33 (Figs. 1 & 6); a gate electrode terminal 5 positioned under the source electrode 33 and electrically connected with the gate electrode 36 (Figs. 1 & 6); and a sealing member 2 sealing the semiconductor chip 16 and parts of the drain, source and gate electrode terminals 4, 5, 6. The source and gate electrode terminals 4, 5 are exposed from a bottom surface 3 of the sealing member 2, and the drain electrode terminal 6 are exposed from a top surface 8 and the bottom surface 3 to the sealing member 2 (Fig. 1). The sealing member 2 has a first side face, a second side face, a third side face and a fourth side face 7, the first and second side faces are opposite each other, and the third and fourth side faces are opposite each other. The first side surface of the sealing member 2 connects to the third and fourth side faces of the sealing member, and the second side surface of the sealing member 2 connects to the third and fourth side faces of the sealing member 2. The source and gate electrode terminals 4, 5 are exposed from the first and second side faces of the sealing member 2, and the drain electrode terminal 6 is exposed from the third and fourth side faces of the sealing member 2 (Figs. 4-5).

In other words, the source and gate electrode terminals 4,5 of the invention are exposed from 1st and 2nd side surfaces of the sealing member 2 in a direction *perpendicular to* the direction which the drain electrode terminal 6 is exposed from the other side surfaces (see e.g., Figs. 4 and 5).

In contrast, Madrid's source and gate electrode terminals 111, 112 are exposed from a side surface of the sealing member/molding material 102 which is *opposite to* (rather than "*perpendicular to*") another side surface from which the drain electrode terminal 107 is exposed (see e.g., Fig. 2 and col. 4, lines 18-29).

Applicants contend that none of the cited references teaches or suggests each and every feature of the present invention as recited in independent claim 25. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

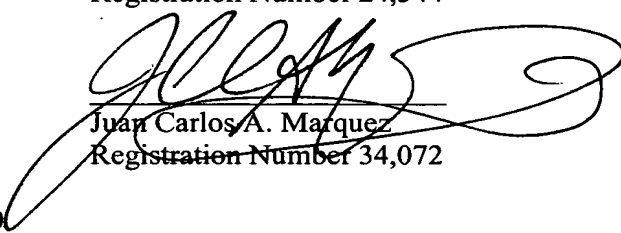
Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely. Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and telephone number indicated below.

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